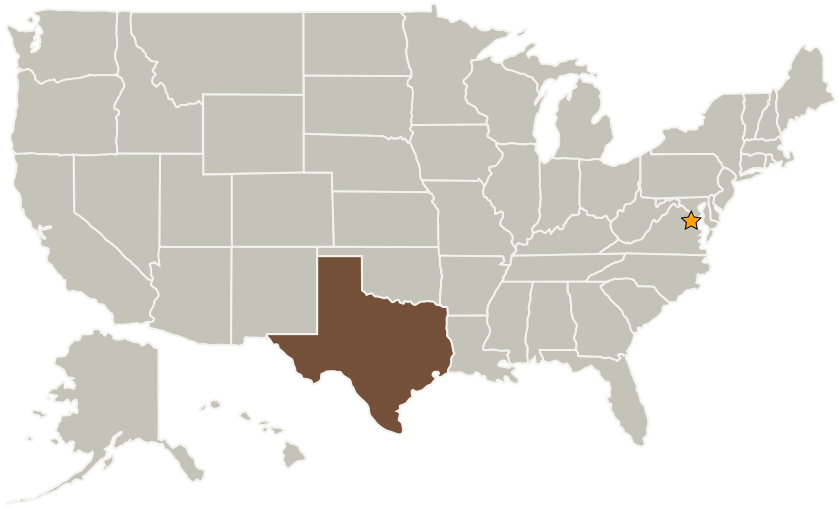
Optically-Modulated Miniature Magnetometer (OMMM)

Completed Technology Project (2011 - 2013)

Project Introduction

Design, fabricate, and calibrate a compact helium magnetometer for high-accuracy measurements of Earth's magnetic field
Provide vector and scalar measurements from a single instrument
Utilize scalar measurements to self-calibrate the vector component measurements
Intended for surface, sub-orbital, and orbital platforms
Achieve superior calibrated vector accuracy (±1 nT per component) not possible with fluxgate magnetometers

Primary U.S. Work Locations and Key Partners



Organizations Performing Work	Role	Type	Location
★NASA Headquarters(HQ)	Lead Organization	NASA Center	Washington, District of Columbia

Primary U.S. Work Locations
Texas

Project Image Optically-Modulated Miniature Magnetometer (OMMM)

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Organizational Responsibility

Responsible Mission Directorate:

Science Mission Directorate (SMD)

Lead Center / Facility:

NASA Headquarters (HQ)

Responsible Program:

Earth Science

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Images

11902-1363100313303.png
Project Image Optically-Modulated Miniature Magnetometer (OMMM)
(https://techport.nasa.gov/image/1702)

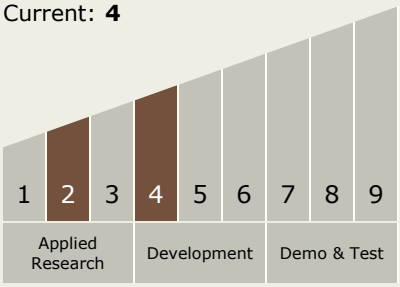
Project Management

Program Director:
George J Komar

Project Manager:
Parminder S Ghuman

Technology Maturity (TRL)

Start: **2**
Current: **4**



Technology Areas

Primary:

- TX08 Sensors and Instruments
  - TX08.3 In-Situ Instruments and Sensors
    - TX08.3.1 Field and Particle Detectors

Target Destination

Earth